ABSTRACT

A pressure vessel comprising a fiber reinforced resin layer [[(4)]], which is made of a reinforced fiber [[(3)]] impregnated ~~in~~ with a resin, on a surface of a vessel body [[(2)]], wherein the pressure vessel is produced by forming the fiber reinforced resin layer [[(4)]] on the surface of the vessel body, applying an internal pressure and plastically deforming (subjecting to an auto-frettage) the vessel body [[(2)]] such that a distortion of the surface of the vessel body in a circumferential direction of the vessel body be in a range of 0.7% to 0.9%, in order to apply a pre-stress to the vessel body [[(2)]] and the fiber reinforced resin layer [[(4)]], and wherein the pressure vessel has a burst pressure, which is 2.2 to 2.8 times as large as a charging pressure. Since the pressure vessel [[(1)]] has excellent fatigue property and burst property, and a reduced weight, this is preferably used as a storage vessel for high pressure gas.